



MID-COLUMBIA PUBLIC UTILITY DISTRICTS

CHELAN, DOUGLAS, GRANT COUNTIES, WASHINGTON

June 27, 2003

RECEIVED

JUL 07 2003

DEPARTMENT OF ECOLOGY
OFFICE OF DIRECTOR

Mr. John Iani
Region X Administrator
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

Re: Preliminary Draft Columbia/Snake Rivers Mainstem Temperature Total
Maximum Daily Loads (TMDL)

Dear Mr. Iani:

We are writing to express our concerns regarding your preliminary draft Temperature TMDL for the Columbia and Snake rivers. We believe that the temperature goals outlined in the draft document are unrealistic, unachievable and most likely unmeasurable. Efforts to enforce compliance with the unreasonable standards proposed could have real and substantial negative impacts on the population of the Pacific Northwest states.

The attached white paper from the Public Utility Districts of Chelan, Douglas and Grant Counties contains our comments on the draft Temperature TMDL. We have thoroughly reviewed the draft document and have identified a number of issues that cause us great concern. Our concerns are as follows:

1. The draft applies Oregon water temperature standards to our hydroelectric projects, all of which are located inside Washington State and well over 100 river miles from the Oregon border. We believe EPA must apply Washington State standards to hydropower projects in Washington State.
2. We believe the draft misinterprets the Oregon standards, and sets standards beyond what is required by the Oregon regulations.
3. We believe the temperature goal outlined in the draft is unachievable because it assumes that hydroelectric facilities do not exist along the Columbia and Snake river systems.

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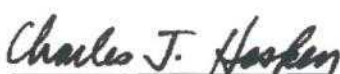
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30 "C" Street S.W.
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4. The draft appears to have no supporting evidence to maintain the conclusion that setting "pre-dam" temperatures as a standard would have any benefit on salmon enhancement.

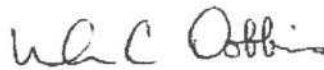
We believe that unless the draft is altered it could start a chain of events that would be economically devastating to families in the Pacific Northwest. Specifically, the draft unnecessarily puts the dam removal issue back into the political limelight, contrary to President Bush's opposition to dam removal during the 2000 campaign. To make matters worse, the draft does so without clearly articulating how this action would enhance the results of salmon enhancement measures already being undertaken in our region.

We anxiously look forward to working with you and your staff on this issue, and hope to meet with you soon to discuss a positive path for settling these issues.


Sincerely,



Charles J. Hosken
General Manager
Chelan County PUD



William C. Dobbins
Manager
Douglas County PUD



Don Godard
Manager
Grant County PUD

Cc: The Honorable Gail A. Norton, U.S. Secretary of Interior
The Honorable Patty Murray, U.S. Senator
The Honorable Maria Cantwell, U.S. Senator
The Honorable Gary Locke, Governor of Washington
The Honorable Dirk Kempthorne, Governor of Idaho
The Honorable Ted Kulongoski, Governor of Oregon
The Honorable Doc Hastings, U.S. Representative
The Honorable George Nethercutt, U.S. Representative
The Honorable James L. Connaughton, Council on Environmental Quality
The Honorable Christine Todd Whitman, EPA Administrator
Ms. Ann Klee, Counselor & Special Assistant, U.S. Secretary of Interior
Mr. Stephen J. Wright, BPA Administrator
Brigadier General David A. Fastbend, U.S. Army Corps of Engineers
Mr. J. William McDonald, Regional Director, U.S. Bureau of Reclamation
Ms. Judi Danielson, Chair, Northwest Power Planning Council
Mr. Tom Fitzsimmons, Director, Washington Department of Ecology

**MID-COLUMBIA PUD COMMENTS ON THE PRELIMINARY DRAFT
COLUMBIA/SNAKE RIVERS MAINSTEM TEMPERATURE TOTAL
MAXIMUM DAILY LOADS (TMDL)**

**Problem 1- The Draft Temperature TMDL Unlawfully and
Inappropriately Attempts to Apply Oregon Water Quality
Standards to Hydroelectric Projects Wholly Within
Washington State**

The Mid-Columbia PUD's hydroelectric projects are located wholly within Washington State¹. Consequently, Washington State water quality standards apply to these projects. The Washington standards require that water temperatures in Class A water bodies such as the Columbia River where the Mid-Columbia PUD projects are located "shall not exceed 18.0° C" or, alternatively, each project shall not "raise water temperatures by greater than 0.3° C" over "natural conditions."² This is the standard that EPA uses as the basis for Washington's listing of segments of the Columbia River within its boundaries under §303(d) of the Clean Water Act and that must apply to the Mid-Columbia PUD projects through a temperature TMDL. Nevertheless, EPA seeks to disregard the very basis for listing of each segment by applying water quality standards of the State of Oregon to the Mid-Columbia PUD projects. This is, on its face, unlawful and conflicts with the State of Washington and EPA's previous approval of the 303(d) list. EPA cannot use the mechanism of a TMDL to effectively amend the water quality standards of Washington State or revise the 303(d) list upon which this TMDL is predicated. To do so is a violation of the Clean Water Act, EPA's own regulations and Washington law.

The TMDL cites *Arkansas v. Oklahoma*, 503 U.S. 91 (1992), as support for EPA's application of Oregon's water quality standards to hydroelectric projects located wholly within Washington State. EPA's reliance on this case is misplaced. *Arkansas v. Oklahoma* is concerned with NPDES permits, not TMDLs. Moreover, to the extent the case could be extended on some theory to apply to a TMDL, it stands for the proposition that a downstream State's water quality standards shall not be applied in an upstream State when the impact of the upstream activity is theoretical and cannot be measured. The Court upheld the determination of EPA's Chief Judicial Officer that:

¹ The Mid-Columbia projects include: Priest Rapids Dam at river mile (RM) 397 and Wanapum Dam at RM 415.5 – both operated by Grant County PUD; Rock Island Dam at RM 453.5 and Rocky Reach Dam at RM 473.7 – both operated by Chelan County PUD; and Wells Dam at RM 515 operated by Douglas County PUD. These projects sell power to over 7,000,000 people in the Northwest including Puget Sound Energy, PacifiCorp, Portland General Electric, Avista, Cowlitz PUD, Okanogan PUD, Forest Grove Light & Power, City of Milton-Freewater, Eugene Water & Electric, Seattle City Light, Tacoma Power, Kittitas PUD, and McMinnville Water & Light.

² WAC 173-201A-030(2)(c)(iv). Below Priest Rapids Project, the maximum temperature criterion is 20° C. WAC 173-201A-130(21).

[A] mere theoretical impairment of Oklahoma's water quality standards- *i.e.*, an infinitesimal impairment predicted through modeling but not expected to be actually detectable or measurable- should not by itself block the issuance of the permit.(emphasis added)

Yet this is precisely what EPA is attempting to do in the draft TMDL. The draft TMDL seeks to apply Oregon standards to the Mid-Columbia PUD projects in Washington State based on speculation that such projects, which are over 390 to 510 miles upstream of RM 4 in Oregon waters, where EPA arbitrarily established its compliance point, have an adverse impact on water temperatures there. EPA cannot, as required in *Arkansas*, show by a "preponderance of the evidence" that the Mid-Columbia PUD projects cause "an actual detectable violation" of Oregon's temperature standards.

Indeed, Oregon's water quality standards provide that temperature increases of less than 0.14° C from an activity within Oregon are not measurable.³ EPA's own modeling has an error threshold 1.0° C and shows that each Mid-Columbia PUD project's temperature impact is considerably below the error inherent in the model. Therefore, EPA can not support the conclusion that the impact from one of the Mid-Columbia PUD projects violates Oregon's temperature standards.

Moreover, EPA mechanically calculates the load allocation by dividing the Oregon 0.14° C threshold (an amount that Oregon has defined in its regulations to be unmeasurable) by the number of dams in Washington to derive a load allocation of approximately 0.01° C for each dam, an even smaller unmeasurable number. Additionally, EPA's theoretical extrapolation ignores the dissipative capacity of the river, one of the factors that 303(d) requires be taken into account. *See* 303(d)(1)(D). Therefore, the TMDL makes no sense because the load allocation proposed by EPA purports to set limits on dams several hundred miles upstream that are one-fifteenth (1/15th) of what Oregon has defined to be measurable and without taking into consideration the thermal dissipative capacity of the river in setting the load allocation, contrary to the Clean Water Act.

Solution 1:

The Mid-Columbia PUD's request that EPA change the structure of the draft TMDL so that it applies Washington State water quality temperature standards to hydroelectric projects that are wholly within Washington state such as the Mid-Columbia PUD projects.

Problem 2- EPA Misinterprets Oregon Standards In a Manner that Results in Draconian Temperature Limits Far Beyond That Required By Oregon Law.

EPA has also misinterpreted Oregon standards in a manner that results in draconian temperature limits far beyond those required by Oregon law. EPA misconstrues Oregon's requirement that individual sources not increase water temperatures by more than 0.25° F (0.14° C) as a

³ OAR 340-041-006(55).

cumulative limitation on all upstream sources.⁴ In other words, EPA seeks to require that the sum of the temperature impacts of all 15 dams on the Columbia River be less than the amount of temperature increase allowed under the Oregon standards for a single dam, and even less than measurable.

EPA's interpretation is contrary to how Oregon applies its own standard. Oregon has consistently interpreted the 0.25° F (0.14° C) limit on the allowable (or measurable) increase to apply to individual sources.⁵ This is evident in the Draft Snake River-Hell's Canyon TMDL jointly prepared by Oregon and Idaho. The Snake River-Hell's Canyon TMDL systematically compares the temperature influence of each dam on that reach of the Snake River with the 0.25° F threshold and concludes that there is no measurable temperature increase as a result of that dam. This illustrates that Oregon does not interpret the 0.25° F threshold to apply cumulatively to all sources in a TMDL.⁶ Additionally, Oregon DEQ policy clearly applies the 0.25° F threshold as an allowance for each individual hydroelectric project. Oregon DEQ policy for application of its temperature standard in 401 water quality certifications for Hydroelectric Projects states: "No physical or operational changes are allowed such that a measurable (0.25° F) stream temperature increase to ambient stream temperature may result from the project."⁷

The TMDL also does not acknowledge that Oregon's water quality standards specifically provide that numeric temperature criteria do not need to be met when it is not reasonable to do so. Oregon considers a wide variety of factors, including "cost of compliance" and "protection of beneficial uses" to determine whether or not "all feasible steps have been taken" for a source to comply with numeric temperature standards.⁸ The standards provide that "the temperature achieved after all feasible steps have been taken will be the temperature criterion for the surface waters covered by the applicable management plan."⁹ This common sense approach to reducing the temperature impacts of dams and other facilities was approved by EPA as part of Oregon's water quality standards. It has also withstood judicial review and been approved by the Federal District Court in Oregon. *Northwest Environmental Advocates v. U.S. Environmental Protection Agency*, CV-01-510, (D.C. Or. March 31, 2003). It is absolutely central to the Oregon temperature standards and provides a model for the entire Northwest region regarding how the

⁴ This threshold applies except where there has been an approved temperature management plan allowing a larger increase. OAR 340-41-445(2)(b).

⁵ OAR 340-041-006(55) defines "Measurable Temperature Increase" as "an increase in stream temperature of more than 0.25° F." (emphasis added) The use of the article "an" rather than any reference to "increases" or cumulative effects indicates that the standards apply separately to each individual increase caused by a hydroelectric project. That is confirmed by the absence of any mechanism in the standards or elsewhere to notify individual sources of the extent to which some portion of the measurable and allowable increment had already been "used up" by others.

⁶ Snake River – Hells Canyon Total Maximum Daily Load (TMDL) Draft 2001.

⁷ Oregon Department of Environmental Quality. January 2002. Internal management directive for application of the threatened and endangered species criterion of Oregon's temperature standard, page 19.

⁸ OAR 340-41-026(3)(a)(D)(ii).

⁹ *Id.*

temperature issue should be addressed in the TMDL and elsewhere.¹⁰ Even though Oregon affords this reasonable approach to dams in Oregon, EPA has not taken this provision into account in its development of the TMDL.

Because the TMDL being developed by EPA applies Oregon temperature standards to segments of the Columbia in Washington, contrary to the basis for which those segments were listed, misapplies Oregon standards to sources in Washington more harshly than Oregon applies them to sources in Oregon, and ignores the applicability of Oregon's temperature management plan, it appears that the TMDL is designed to achieve a preordained result that will foster cries for dam removal rather than an objective and workable plan. In the process, EPA has developed a plan that illegally discriminates against sources in the State of Washington. The TMDL also runs counter to the efforts of the Governors of Oregon, Washington, Idaho and Montana who are attempting to develop a plan for the protection of salmon that does not involve the removal of the Snake River dams.

Solution 2:

The TMDL should be modified to apply temperature management plans to projects bordering Washington and Oregon consistent with their current application by water quality agencies in their respective states. Washington standards should be applied to sources located exclusively in the State of Washington.

Problem 3 - The Preliminary Draft TMDL Inappropriately Assumes that the 15 Dams on the Columbia and Snake River Do Not (Or Should Not) Exist.

EPA has systematically excluded existing hydroelectric dams and major resource developments from consideration as part of the environmental baseline by applying a hypothetical environmental baseline that predates European settlement of the Northwest. By thus disregarding the existence of dams that long predated the CWA and were determined by Congress to be in the public interest due to their enormous benefits, the draft TMDL has veered far from EPA's mandate in § 303(d).¹¹ In the case of thermal water quality standards, in particular, §303(d) directs consideration of normal temperatures and prevailing flows, both of which are necessarily affected by the dams.

¹⁰ The 401 Certifications for the North Umpqua and Pelton Round Butte Hydroelectric Projects, FERC license Nos. 1927 and 2030 respectively, were predicated on the use of temperature management plans on rivers that were also subject to the implementation of a TMDL for temperature.

¹¹ Development of the Mid and Upper Columbia River began more than 50 years ago beginning with Rock Island Dam in 1933, followed by Grand Coulee Dam in 1941, and later the Chief Joseph Dam in 1958. Additionally, four other non-federal dams were built - Priest Rapids in 1960, Rocky Reach in 1961, Wanapum in 1963, and Wells Dam in 1967. Three other large storage reservoirs were constructed under the terms of the 1961 Treaty between Canada and the United States; Mica-1972, Arrow-1968 and Duncan-1969. All predate the Clean Water Act.

In a related context, the Ninth Circuit rejected the notion that FERC was required to go back even 50 years, much less to the epoch before Lewis & Clark, to determine an environmental baseline. See *American Rivers v. FERC*, 201 F.3d 1186, (9th Cir. 1999). In upholding FERC's use of existing conditions with the dam in place as the environmental baseline, the court said,

It defies common sense and notions of pragmatism to require the Commission or [hydroelectric license] applicants to "gather information to recreate a 50-year-old environmental base upon which to make present day development decisions.

Id. at 1019. It pointed to legislative history of 1986 amendments to the Federal Power Act that indicated congressional intent that FERC use current, not historical, conditions as the baseline. Because the TMDLs' demands will be translated into FERC license conditions by operation of §401 water quality certifications for dams, adoption of the draft TMDL would block FERC from properly considering the existing baseline and thus frustrate congressional intent.

Adoption of the draft TMDL would also frustrate the intention of Washington's own state legislature that hydroelectric power generation be recognized and preserved as a beneficial use of Washington's waters, on a par with any other use. In particular, the Water Resources Act, RCW 90.54.020 provides:

Utilization and management of the waters of the state shall be guided by the following general declaration of fundamentals:

- (1) Uses of water for . . . hydroelectric power . . . and preservation of environmental and aesthetic values and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial.
- (2) Allocation of waters among potential uses and users shall be based generally on the securing of the maximum net benefits for the people of the state. Maximum net benefits shall constitute total benefits less costs including opportunities lost.

That act also attempted to preserve the rights and beneficial value of existing dams by providing that "[n]othing in this chapter shall . . . affect existing rights relating to the operation of any hydroelectric or water storage reservoir or related facility." RCW 90.54.900. Nothing in CWA §303(d) compels EPA to disregard these Washington state laws and policies by pretending that existing dams the state sought to protect do not exist as part of the environmental baseline.

Nor is EPA institutionally compelled to ride rough-shod over state law and policies, or to demand impracticable Use Attainability Analyses before it can acknowledge reality and embrace reason. EPA Region III, for example, recently commented on a redesignation of stream segments' use classification recommended by the Pennsylvania Department of Environmental Protection (DEP) from Cold Water Fisheries (CWF) use to Warm Water Fisheries (WWF) use. No UAA was required. Instead, the state reviewed and presented data that showed the

temperature criteria for CWF were not, and had not been, met. According to DEP's response to comments, EPA Region III commented:

... DEP has demonstrated that attaining the cold water fisheries designated use is not feasible because dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use.¹²

In that case, EPA thus found a way to recognize that the dams and associated reservoirs in question had effectively become part of the environmental baseline and to treat them accordingly.

In doing so, EPA was acting consistently with the recommendations of the Federal Advisory Committee on Total Maximum Daily Loads, as well as the National Research Council's Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction.¹³ The implication of the National Research Council Committee's report is that, unless the standards themselves are well-founded, the TMDL will have no adequate scientific foundation. EPA must recognize reality: dams exist on the Columbia and had become an ineluctable part of the environmental baseline before the CWA was enacted.

Solution 3:

The draft TMDL's analysis of temperature impacts should, consistent with the statute and recommendations of the Federal Advisory Committee on the Total Maximum Daily Load, be modified to assume the existence of dams in the Columbia River as part of the temperature baseline.

Problem 4- The Preliminary Draft TMDL Contains No Evidence to Support Its Assumption that "Pre-Dam" Temperatures Would Benefit Salmon

The modified temperature regime in the Columbia and Snake Rivers due to dams, particularly the shift toward more moderate fall and winter water temperatures, has been in effect for over 10 generations of salmon and steelhead. During this time period, some salmon populations have seen great fluctuations in productivity, with periods of high survival in the 1960s, early 1980s,

¹² Pennsylvania DEP, Report to the Environmental Quality Board, Response to Comments, Proposed Stream Redesignation: East Branch Codorus Creek, *available at* <http://www.dep.state.pa.us/dep/deputate/watermgt/Wqp/WQStandards/StreamStatus/EastBranchCodorusCreek>, *last visited* 5/27/03.

¹³ See Report of the Federal Advisory Committee on the Total Maximum Daily Load Program July 1998 at p. 46-47; Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction, National Research Council, "Assessing the TMDL Approach to Water Quality Management" at 23-24 & 93 (National Academy Press, 2001).

and the past few years, and periods of low productivity in the 1970s and 1990s. The greatest fluctuations have occurred to spring chinook populations, which spawn and rear in tributary streams and use the Columbia and Lower Snake rivers only as migration corridors.

Populations of salmon that spawn and rear in the Columbia and Lower Snake rivers, which would be expected to be the most sensitive to any adverse effects of the changes in river temperatures, have shown increasing stability and productivity. Principal among these populations are the summer and fall chinook that spawn and rear in the main stem Columbia River, the Hanford Reach population and populations spawning below Wanapum and Wells dams and in the Chelan River. These populations have all been increasing, as evidenced by fishway counts at dams and spawning ground surveys.

These fall chinook populations (also called summer chinook in the mid-Columbia area) experience the full effects of the changes to the temperature regime due to the existence of dams, including the warmer temperatures in the fall and more moderate temperatures in the winter. Nevertheless, the preliminary draft of the TMDL places a major emphasis on the need to change the fall temperature regime because it is the greatest deviation from the hypothetical calculated "natural" temperature regime predicted by the TMDL model. The TMDL assumes that a return to the pre-dam temperature regime, rather than current temperatures, is necessary at all costs, but it provides no evidence to support this premise.

To the contrary, the evidence indicates that the current temperature regime amply supports fall chinook populations. In fact, it is possible that current temperatures, in combination with the higher winter river flows from storage reservoirs, may even be beneficial to salmon. The Mid-Columbia PUD projects moderate peak daily maximum temperatures in the summer. Extensive studies of spawning timing and emergence timing have been conducted in recent years on the fall chinook population in the Hanford Reach. The data collected in the Hanford Reach shows that the fish initiate spawning when water temperatures are appropriate and emergence occurs through the early spring. This timing is beneficial for the survival of these fish. The increased spawning population of these Hanford Reach chinook is evidence that current river temperature conditions lead to successful reproduction and survival.

Solution 4:

The purpose of the TMDL should be maintaining and promoting conditions that benefit salmon rather than focusing on the mechanical application of numeric temperature criteria regardless of benefits to fish or overall cost to society. The TMDL should focus areas where the greatest biological benefit can be achieved through temperature modifications. Such an approach is the only way that EPA can make good on its legal obligation under Section 303(d) of the Clean Water Act "to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife." See 303(d)(1)(D).